

HISTORIC AMERICAN ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

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ROCKY FLATS PLANT

HAER No. CO-83

(Rocky Flats Environmental Technology Site)

Bounded by Highways 93, 128, and 72, and Indiana Street

Main Entrance on Highway 93

Golden Vicinity

Jefferson County

Colorado

Photographs CO-83-1 through CO-83-9, by Timothy McGrath and Katherine T. Abeyta, Source One, site photography contractor, summer, 1997.

Photographs CO-83-10 through CO-83-32, by various site photography contractors, dates indicated in parentheses.

- CO-83-1 VIEW, LOOKING NORTH, NORTH OF PORTAL 1, JUST INSIDE THE PROTECTED AREA. ON THE LEFT SIDE OF THE PHOTOGRAPH IS BUILDING 709, THE COOLING TOWER FOR BUILDING 707, AND BEHIND BUILDING 709 IS BUILDING 707, THE NEWEST OF THE PLUTONIUM FABRICATION BUILDINGS. IN THE RIGHT FOREGROUND IS BUILDING 763, A BREEZEWAY FOR PEDESTRIANS. IN THE FAR LEFT OF THE PHOTOGRAPH ARE THE T750 TRAILERS AND BUILDING 750, THE PRODUCTION SUPPORT ENGINEERING FACILITY.
- CO-83-2 VIEW, LOOKING NORTHWEST, FROM INSIDE THE PROTECTED AREA AT THE BASE OF TOWER 901. THE BUILDINGS IN THE FOREGROUND INCLUDE 984, 992, 991, 989, AND 968. THESE BUILDINGS MAKE UP THE BUILDING 991 COMPLEX. BUILDING 991, PLANT D, WAS THE FIRST OPERATIONAL BUILDING ON SITE, CONSTRUCTED IN 1951 AS THE FINAL ASSEMBLY AND SHIPPING AND RECEIVING BUILDING. TO THE NORTH AND NORTHWEST OF BUILDING 991 ARE THE UNDERGROUND VAULTS AND TUNNELS USED TO STORAGE WEAPONS COMPONENTS.
- CO-83-3 VIEW OF CENTRAL AVENUE LOOKING WEST FROM JUST EAST OF THE INTERSECTION OF CENTRAL AVENUE AND THE EAST PERIMETER ROAD. THE ROCKY FLATS PLANT IS ABOUT 16 MILES NORTHWEST OF DENVER ON A PLATEAU AT THE EASTERN EDGE OF THE FRONT RANGE OF THE ROCKY MOUNTAINS.

- CO-83-4 VIEW LOOKING WEST DOWN CENTRAL AVENUE AT THE INTERSECTION WITH SEVENTH STREET. THE PLANT HAS MOST OF THE AMENITIES OF A SMALL TOWN - WATER SUPPLY, WASTE WATER TREATMENT, POLICE FORCE, FIRE DEPARTMENT, FOOD SERVICES, HOSPITAL, COMMUNICATIONS NETWORK, STEAM GENERATION, VEHICLE MAINTENANCE, TRANSPORTATION, AND A GOVERNMENT.
- CO-83-5 VIEW LOOKING SOUTH DOWN SIXTH STREET AT THE INTERSECTION WITH CENTRAL AVENUE. AS PART OF THE INITIAL SITE DEVELOPMENT, A RAILROAD SPUR, ACCESS ROADS, POWER LINES, AND TELEPHONE LINES WERE BUILT. ALL FACILITIES WERE HEATED BY STEAM GENERATED IN BUILDING 443 AND PIPED THROUGHOUT THE SITE. THE BUILDING IN THE BACKGROUND OF THE PHOTOGRAPH IS BUILDING 664, A LOW-LEVEL WASTE STORAGE FACILITY.
- CO-83-6 VIEW LOOKING NORTH ON SIXTH STREET, ACROSS CENTRAL AVENUE. THE BUILDING ON THE RIGHT IS BUILDING 551, BUILT IN 1953 AS A WAREHOUSE AND METAL FABRICATION SHOP. THE BUILDING ON THE LEFT IS BUILDING 334, ALSO BUILT IN 1953, AS THE ELECTRICAL AND GENERAL MAINTENANCE SHOP. IN THE CENTER OF THE PHOTOGRAPH IN THE BACKGROUND IS BUILDING 374, THE AQUEOUS PROCESS WASTE TREATMENT PLANT.
- CO-83-7 VIEW LOOKING WEST DOWN CENTRAL AVENUE AT THE INTERSECTION WITH SEVENTH STREET. THE PLANT WAS BUILT ON THE SITE WITH FOUR SEPARATE PRODUCTION AREAS, AND AN ADMINISTRATION AND SUPPORT AREA. THIS PHOTOGRAPH SHOWS THE EASTERN EDGE OF THE CORE ADMINISTRATION AND SUPPORT AREA, BUILT IN THE EARLY 1950S. IN THE LEFT FOREGROUND OF THE PHOTOGRAPH IS BUILDING 442, USED TO TEST ALL HEPA FILTERS ON SITE.
- CO-83-8 VIEW LOOKING NORTHEAST, FROM THE T371 TRAILERS. IN THE FOREGROUND IS BUILDING 371, BUILT IN 1981 TO REPLACE BUILDING 771 FOR PLUTONIUM RECOVERY OPERATIONS. IN THE BACKGROUND, TO THE EAST OF BUILDING 371, ARE THE 700-AREA BUILDINGS, PLUTONIUM OPERATIONS.

- CO-83-9 VIEW LOOKING SOUTHEAST AT THE 771-AREA COMPLEX. THE 771 COMPLEX, ORIGINALLY KNOWN AS PLANT C, HOUSED ALL THE PLUTONIUM PROCESSES UNTIL 1956 WHEN BUILDING 776/777 BECAME OPERATIONAL.
- CO-83-10 AERIAL VIEW LOOKING NORTHWEST AT THE 400-AREA COMPLEX. THIS AREA OF THE PLANT MANUFACTURED NON-PLUTONIUM WEAPONS COMPONENTS FROM BERYLLIUM, DEPLETED URANIUM, AND STAINLESS STEEL. THE 400-AREA ALSO INCLUDED A FACILITY FOR THE MODIFICATION OF SAFE SECURE TRANSPORT VEHICLES FOR SPECIAL NUCLEAR MATERIALS BEING SHIPPED TO AND FROM THE SITE. BUILDING 444, IN THE UPPER RIGHT EDGE OF THE PHOTOGRAPH, WAS THE ORIGINAL PLANT A. THE LARGE BUILDING IN THE TOP OF THE PHOTOGRAPH IS BUILDING 460, BUILT AS A STATE-OF-THE-ART STAINLESS STEEL MANUFACTURING FACILITY (6/27/95).
- CO-83-11 AERIAL VIEW LOOKING NORTH AT THE BUILDING 800-AREA COMPLEX. ENRICHED URANIUM COMPONENTS WERE MANUFACTURED IN THIS AREA OF THE SITE. BUILDING 881, IN THE RIGHT FOREGROUND OF THE PHOTOGRAPH, WAS THE ORIGINAL PLANT B. BUILDING 883, USED FOR ROLLING AND FORMING URANIUM COMPONENTS, IS DIRECTLY TO THE NORTH OF BUILDING 881. TO THE EAST OF BUILDING 883 IS BUILDING 865, A RESEARCH AND DEVELOPMENT FACILITY FOR ALLOYS AND NON-PLUTONIUM METALS. IN THE FOREGROUND TO THE WEST OF BUILDING 881 IS AN OFFICE BUILDING, 850 (6/7/90).
- CO-83-12 VIEW OF THE ROCKY FLATS PLANT LOOKING WEST. AFTER 38 YEARS, WEAPONS PRODUCTION CEASED IN 1989. IN 1992, THE PLANT MISSION CHANGED FROM WEAPONS PRODUCTION TO ENVIRONMENTAL CLEAN UP AND RESTORATION. BY 1995, THE SITE HAD BEGUN TO BE DISMANTLED (6/27/95).
- CO-83-13 AERIAL VIEW OF THE ROCKY FLATS PLANT FROM DIRECTLY OVERHEAD IN 1954. IN 1950, DOW CHEMICAL COMPANY WAS CHOSEN BY THE ATOMIC ENERGY COMMISSION TO ESTABLISH THE ROCKY FLATS PLANT AS AN ATOMIC BOMB TRIGGER FABRICATION FACILITY. THE CRITERIA FOR SITING SUCH A PLANT INCLUDED A LOCATION WEST OF THE

MISSISSIPPI, NORTH OF TEXAS, SOUTH OF THE NORTHERN BORDER OF COLORADO, AND EAST OF UTAH; A DRY MODERATE CLIMATE; A SUPPORTING POPULATION OF AT LEAST 25,000 PEOPLE; AND ACCESSIBILITY FROM LOS ALAMOS, NM, CHICAGO, IL, AND ST. LOUIS, MO. TWENTY-ONE AREAS IN THE UNITED STATES WERE SUGGESTED; SEVEN LOCATIONS WERE SCREENED IN THE DENVER AREA. THIS FOUR-SQUARE MILE AREA WAS SELECTED AND CONSTRUCTION BEGAN IN 1951 (8/31/54).

- CO-83-14 VIEW LOOKING WEST AT THE EAST SIDE OF BUILDING 81 UNDER CONSTRUCTION IN 1952. THE GROUND RISES IN ELEVATION TOWARD THE CENTER OF THE SITE FROM THE NORTH, EAST, AND SOUTH. BUILDINGS 71, 91, AND 81 WERE BUILT INTO HILLSIDES SO THAT IN THE EVENT OF A SOVIET ATTACK, ALL THREE PLANTS WOULD NOT BE DESTROYED (1952).
- CO-83-15 VIEW LOOKING EAST AT UNDERGROUND VAULT, BUILDING 997, UNDER CONSTRUCTION. THE VAULTS WERE USED TO STORE TRIGGERS AWAITING OFF-SITE SHIPMENT, OR RETURNED TRIGGERS AWAITING TO BE TRANSPORTED TO A BUILDING FOR RECOVERY OF THE PLUTONIUM. THE VAULT WALLS WERE CONSTRUCTED 14.5 FEET THICK. BUILDING 991, IN THE BACKGROUND, WAS THE FIRST OPERATIONAL BUILDING ON SITE (2/1/52).
- CO-83-16 VIEW LOOKING NORTHEAST AT BUILDING 11 (111) IN 1952. IN 1952, BUILDINGS 11 (111), 12 (121), 21 (221), 22 (122), 23 (123), AND 42 (442) WERE OCCUPIED. BUILDINGS 91 (991) AND 81 (881) WERE OPERATIONAL. BUILDINGS 44 (444) AND 71 (771) WERE UNDER CONSTRUCTION. THE TOTAL COST FOR CONSTRUCTION BY 1952 WAS \$2.5 MILLION. BY SEPTEMBER OF 1953, AUSTIN COMPANY HAD COMPLETED 21 BUILDINGS FOR AN APPROXIMATE COST OF \$43.3 MILLION (1952).
- CO-83-17 VIEW LOOKING NORTHWEST AT BUILDING 44 (444) UNDER CONSTRUCTION IN 1952. BUILDING 444 WAS A HIGHLY SOPHISTICATED METAL FABRICATION AND MACHINE SHOP CAPABLE OF PRODUCING PARTS TO EXTREMELY CLOSE TOLERANCES FROM BERYLLIUM AND DEPLETED URANIUM (3/2/52).

- CO-83-18 VIEW OF THE NORTH ELEVATION OF BUILDING 71 (771) UNDER CONSTRUCTION IN 1952. BUILDING 71 WAS THE ORIGINAL PLUTONIUM OPERATIONS BUILDING. PRODUCTION BUILDINGS WERE BUILT INTO HILLSIDES AND/OR BELOW GRADE AS A SAFETY MEASURE AGAINST RUSSIAN ATTACK (3/2/52).
- CO-83-19 VIEW LOOKING NORTH AT BUILDING 81 (881) UNDER CONSTRUCTION IN 1952. THIS BUILDING IS A THREE-STORY REINFORCED CONCRETE AND STEEL BUILDING CONSTRUCTED BELOW GROUND. ITS ROOF IS FLUSH WITH THE FINISH GRADE ALONG THE NORTH AND MOST OF THE EAST AND WEST SIDES. THE BUILDING CONTAINED ENRICHED URANIUM AND STAINLESS STEEL OPERATIONS, AS WELL AS GENERAL ACCOUNTING, COMPUTER AND INFORMATION SYSTEMS, AND RECORD MANAGEMENT (3/2/52).
- CO-83-20 AERIAL VIEW OF THE ROCKY FLATS PLANT LOOKING NORTHEAST. THE PLANT WAS COMPOSED OF FOUR WIDELY SEPARATED AREAS, EACH ONE PERFORMING A DIFFERENT TYPE OF WORK. PLANT A (44), SOUTHWEST, FABRICATED PARTS FROM DEPLETED URANIUM, PLANT B (81), SOUTH, WAS ENRICHED URANIUM OPERATIONS, PLANT C (71), NORTH, PLUTONIUM OPERATIONS, AND PLANT D (91), EAST, WAS FINAL ASSEMBLY, SHIPPING AND RECEIVING (2/6/66).
- CO-83-21 AERIAL VIEW OF THE ROCKY FLATS PLANT LOOKING NORTHWEST. BY THE LATE 1960S, THE SITE HAD UNDERGONE TWO MAJOR EXPANSIONS. THE FIRST EXPANSION IN 1956-57, WHEN THE TRIGGER DESIGN CHANGED AND NECESSITATED THE ADDITION OF SEVEN NEW BUILDINGS. THE SECOND LARGE EXPANSION TOOK PLACE FROM 1964-65, WHEN ROCKY FLATS BECAME THE SOLE PRODUCER OF TRIGGERS. DURING THIS EXPANSION, ELEVEN BUILDINGS WERE ADDED, PRIMARILY IN RESEARCH AND DEVELOPMENT LABORATORIES, GUARD HOUSES, AND WASTE WATER TREATMENT (7/1/69).
- CO-83-22 AERIAL VIEW LOOKING EAST DOWN CENTRAL AVENUE FROM WEST OF THE ADMINISTRATIVE AND SUPPORT AREA OF THE PLANT. ON THE LEFT (NORTH) SIDE OF THE STREET IN THE

FOREGROUND OF THE PHOTOGRAPH IS BUILDING 111, THE GENERAL ADMINISTRATION BUILDING. TO THE EAST OF BUILDING 111 IS BUILDING 112, THE CAFETERIA. FURTHER TO THE EAST IS BUILDING 331, THE VEHICLE MAINTENANCE GARAGE AND FIRE DEPARTMENT; BUILDING 333, THE PAINT SHOP; BUILDING 334, THE ELECTRICAL AND GENERAL MAINTENANCE SHOP; AND BUILDING 551, THE GENERAL WAREHOUSE. ON THE RIGHT (SOUTH) SIDE OF CENTRAL AVENUE, IN THE FOREGROUND IS BUILDING 121, FIREARMS REPAIR. BEHIND BUILDING 121 IS BUILDING 122, EMERGENCY MEDICAL SERVICES, AND BUILDING 123, HEALTH PHYSICS LABORATORY. BUILDING 441, THE PRODUCTION SUPPORT ADMINISTRATIVE OFFICES, IS TO THE EAST OF BUILDING 123. TO THE EAST OF BUILDING 441 IS BUILDING 443, THE STEAM GENERATION PLANT (7/1/69).

CO-83-23

AERIAL VIEW LOOKING SOUTHEAST AT THE PLUTONIUM OPERATION BUILDINGS 771, 776/777, AND 707. BUILDING 771, IN THE FOREGROUND, WAS BUILT IN 1952 TO HOUSE ALL PLUTONIUM OPERATIONS. BY 1956, BUILDING 771 WAS NO LONGER ADEQUATE FOR PRODUCTION DEMANDS. BUILDING 776/777, TO THE SOUTH OF BUILDING 771, WAS CONSTRUCTED TO HOUSE PLUTONIUM FABRICATION AND FOUNDRY OPERATIONS. PLUTONIUM RECOVERY REMAINED IN BUILDING 771. BY 1967, CONSTRUCTION ON BUILDING 707, TO THE SOUTH OF BUILDING 776/777, BEGAN AS PRODUCTION LEVELS CONTINUED TO EXPAND NECESSITATING THE NEED FOR ADDITIONAL PLUTONIUM FABRICATION SPACE (7/1/69).

CO-83-24

AERIAL VIEW LOOKING SOUTHEAST AT BUILDING 371 UNDER CONSTRUCTION IN 1974. BY 1968, BUILDING 771 WAS OUTMODED AND NEW TECHNOLOGIES HAD BEEN DEVELOPED FOR PLUTONIUM RECOVERY. AS A RESULT, A NEW RECOVERY BUILDING, BUILDING 371 WAS PLANNED. BUILDING 371 SUFFERED FROM VARIOUS DESIGN PROBLEMS, WHICH PREVENTED ITS OPENING UNTIL 1981 AND CAUSED TERMINATION OF RECOVERY OPERATIONS IN 1986. IT NEVER BECAME FULLY OPERATIONAL. TO THE EAST OF BUILDING 371, IS THE 700 BUILDING COMPLEX (4/74).

CO-83-25

AERIAL VIEW OF THE ROCKY FLATS PLANT LOOKING WEST-NORTHWEST IN 1974. IN 1972, 4,600 ACRES WERE PURCHASED

AROUND THE SITE TO BETTER PROTECT THE BORDERS FROM TERRORISM AND INFILTRATION BY PROTESTORS. ANTI-NUCLEAR DEMONSTRATION BEGAN SHORTLY AFTER THE 1969 FIRE IN BUILDING 776/777, AND CONTINUED UNTIL PRODUCTION CEASED AT THE PLANT IN 1989 (10/7/74).

- CO-83-26 AERIAL VIEW OF THE ROCKY FLATS PLANT LOOKING NORTHEAST. IN 1951, A GOOD FRIDAY ISSUE OF THE DENVER POST ANNOUNCED THE ATOMIC ENERGY COMMISSION'S PLANS TO BUILD THE ROCKY FLATS PLANT, UNDER THE HEADLINE "THERE'S GOOD NEWS TODAY." POLITICAL LEADERS EXPRESSED GREAT PRIDE IN THE CHOICE OF THE DENVER-BOULDER AREA AS THE SITE FOR AN ATOMIC PLANT AS QUOTED IN THE ROCKY MOUNTAIN NEWS: "WE ARE PROUD THAT THE AREA HAS BEEN CHOSEN FOR ANOTHER IMPORTANT CONTRIBUTION TO THE NATION'S STRENGTH AND FUTURE SECURITY." BY THE MID 1970S, PUBLIC OPINION OF THE SITE HAD CHANGED (5/4/78).
- CO-83-27 AERIAL VIEW LOOKING EAST DOWN THE WEST ACCESS ROAD. THE FIRST LARGE PROTEST AT THE PLANT CAME IN 1978. IT WAS THE FIRST MAJOR PROTEST AT ANY DEPARTMENT OF ENERGY PLANT. IN RESPONSE TO CONTINUING ANTI-NUCLEAR PROTESTS, IN PARTICULAR A 1979 RALLY THAT DREW 10,000 PARTICIPANTS, ROCKWELL EMPLOYEES AT THE PLANT FORMED A GRASSROOTS ORGANIZATION, CITIZENS FOR ENERGY AND FREEDOM, AND ORGANIZED A PRO-NUCLEAR RALLY, "POWER TO THE PEOPLE," THAT ATTRACTED 16,000 PEOPLE (5/4/78).
- CO-83-28 AERIAL VIEW LOOKING EAST AT THE WEST GATE IN 1978. SHOWN IS BUILDING 100, THE MAIN ENTRANCE POINT TO THE SITE FROM 1969 UNTIL 1985. DURING THIS TIME EACH AUTOMOBILE THAT ENTERED THE SITE WAS SEARCHED. IN 1985, BUILDING 120 WAS BUILT AT THE OUTERMOST WEST EDGE OF THE SITE. THERE WERE 29 FACILITIES AROUND THE SITE DEDICATED TO SECURITY (5/4/78).
- CO-83-29 AERIAL VIEW OF THE ROCKY FLATS PLANT LOOKING SOUTH. IN 1983, THE PERIMETER SECURITY ZONE SURROUNDING THE PLUTONIUM OPERATIONS WAS COMPLETED. IT CONSISTED OF A DOUBLE PERIMETER FENCE, CLOSED CIRCUIT

TELEVISIONS, ALARMS, AND AN UNINTERRUPTED POWER SUPPLY (7/29/83).

- CO-83-30 VIEW OF A GLOVEBOX LINE USED IN PLUTONIUM OPERATIONS. SAFETY AND HEALTH CONCERNS WERE OF MAJOR IMPORTANCE AT THE PLANT, BECAUSE OF THE RADIOACTIVE NATURE OF THE MATERIALS USED. PLUTONIUM GIVES OFF ALPHA AND BETA PARTICLES, GAMMA PROTONS, NEUTRONS, AND IS ALSO PYROPHORIC. AS A RESULT, PLUTONIUM OPERATIONS ARE PERFORMED UNDER CONTROLLED CONDITIONS THAT INCLUDE CONTAINMENT, FILTERING, SHIELDING, AND CREATING AN INERT ATMOSPHERE. PLUTONIUM WAS HANDLED WITHIN GLOVEBOXES THAT WERE INTERCONNECTED AND RAN SEVERAL HUNDRED FEET IN LENGTH (5/5/70).
- CO-83-31 VIEW OF A WORKER HOLDING A PLUTONIUM "BUTTON." PLUTONIUM, A MAN-MADE SUBSTANCE, WAS RARE. SCRAPS RESULTING FROM PRODUCTION AND PLUTONIUM RECOVERED FROM RETIRED NUCLEAR WEAPONS WERE RE-PROCESSED INTO VALUABLE PURE-PLUTONIUM METAL (9/19/73).
- CO-83-32 AERIAL VIEW OF THE ROCKY FLATS PLANT LOOKING NORTHWEST. DURING THE 1980S, A NUMBER OF COMPLAINTS CONCERNING SAFETY AND ENVIRONMENTAL ERRORS SURFACED, CULMINATING IN THE 1989 RAID ON THE PLANT BY THE FBI FOR ALLEGED ENVIRONMENTAL INFRACTIONS. THAT SAME YEAR, PRODUCTION AT THE PLANT WAS HALTED FOR CORRECTION OF SAFETY DEFICIENCIES. BY 1991, A SERIES OF EVENTS WORLDWIDE REDUCED THE COLD WAR THREAT, AND IN 1992, THE SECRETARY OF ENERGY ANNOUNCED THAT THE MISSION AT THE PLANT WOULD BE CHANGED TO ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT, WITH THE GOAL OF CLEANING UP THE PLANT AND SITE (1989).